

Docket No.: GR98P2124P

MAIL STOP: APPEAL BRIEF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

Applic. No.	:	09/761,240	Confirmation No.:	5138
Inventor	:	Josef-Georg Bauer, et al.		
Filed	:	January 17, 2001		
Title	:	Power Semiconductor Element with an Emitter Region and a Stop Zone in Front of the Emitter Region		
TC/A.U.	:	3663		
Examiner	:	Johannes P. Mondt		
Customer No.	:	24131		

Hon. Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

Sir:

This is in response to the Notice of Non-Compliant Appeal Brief dated February 25, 2009.

Appellants are submitting, herein, a substitute "Summary of the Claimed Subject Matter" section, to replace that section submitted in the Brief on Appeal filed on December 9, 2008.

Remarks:

Appellants would like to thank Examiner Mondt for the courtesy shown to Appellants' representative in the Telephonic Interview of February 19, 2009, initiated by Examiner Mondt.

Pursuant to that Telephonic Interview, Appellants are submitting, herein, a substitute "Summary of the Claimed Subject Matter" section, to replace that section submitted in the Brief on Appeal filed on December 9, 2008. The Notice of Non-Responsive Appeal Brief (the "Notice") invited Appellants to submit an amended "Summary of the Claimed Subject Matter" section, only. As such, the remainder of the Brief on Appeal is not being resubmitted herewith and thus, is unchanged by this Response. Appellants are simultaneously faxing this Response to Examiner Mondt, pursuant to the request made in the Notice.

As such, please consider the following in connection with the Brief on Appeal of December 9, 2008:

Summary of the Claimed Subject Matter:

The subject matter of each independent claim is described in the specification of the instant application. Examples explaining the subject matter defined in each of the independent claims, referring to the specification by page and line numbers, and to the drawings, are given below.

Independent claim 9:

A power semiconductor element [Fig. 1; page 1, lines 13 – 16; page 5, lines 11 –

13; page 9, lines 13 - 17], comprising:

an emitter region **[5 of Fig. 1; page 6, lines 1 – 2];** and

a stop zone **[6 of Fig. 1]** in front of said emitter region **[5 of Fig. 1]** **[page 6, lines 2 – 5],** the stop zone **[6 of Fig. 1]** and said emitter region **[5 of Fig. 1]** having mutually opposite conductivities **[page 1, lines 13 – 16; page 3, lines 6 – 8; page 6, lines 1 – 2 and 6 - 7],** the stop zone **[6 of Fig. 1]** including sulfur atoms **[page 4, lines 10 – 11; page 6, lines 16 - 18]** with at least one energy level within the band gap of the semiconductor and at least 200 meV away from both a conduction band and a valence band of the semiconductor **[page 6, lines 13 – 18; page 6, line 26 – page 7, line 2; page 3, lines 8 – 11 and 19 - 22],** the stop zone **[6 of Fig. 1]** having a doping profile of sulfur atoms such that the stop zone **[6 of Fig. 1]** is only partially electrically active in the on-state and fully electrically active in the off-state for carriers emitted by the emitter region **[8, 9 of Fig. 2]** **[page 7, lines 3 - 10; page 7, line 24 - page 8, line 8].**

Independent claim 10:

A power semiconductor element **[Fig. 1; page 1, lines 13 – 16; page 5, lines 11 – 13; page 9, lines 13 - 17],** comprising:

an emitter region **[5 of Fig. 1; page 6, lines 1 – 2];** and

a stop zone **[6 of Fig. 1]** in front of said emitter region **[5 of Fig. 1]** **[page 6, lines 2 – 5],** the stop zone and said emitter region having mutually opposite conductivities **[page 1, lines 13 – 16; page 3, lines 6 – 8; page 6, lines 1 – 2 and 6 - 7],** the stop zone including selenium atoms **[page 4, lines 10 – 11; page 7, lines 14 - 16]** with at least one energy level within the band gap of the semiconductor and at least 200

meV away from both a conduction band and a valence band of the semiconductor [page 7, lines 16 - 18; page 3, lines 8 - 11 and 19 - 22], the stop zone having a doping profile of selenium atoms such that the stop zone [6 of Fig. 1] is only partially electrically active in the on-state and fully electrically active in the off-state for carriers emitted by the emitter region [8, 9 of Fig. 2] [page 7, lines 3 - 10; page 7, line 24 - page 8, line 8].

It is believed that the foregoing addresses the concerns raised in the Notice of Non-Compliant Amendment of February 25, 2009.

If an extension of time is required for this submission, petition for extension is herewith made. Any fees due should be charged to Deposit Account No. 12-1099 of Lerner Greenberg Sterner LLP.

Respectfully submitted,

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